



University of Groningen

Komplexe zouten van trans-1-2-diaminocyclohexaan met driewaardig rhodium en kobalt

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Document Version

Publisher's PDF, also known as Version of record

Publication date:

1937

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Bijkerk, L. (1937). Komplexe zouten van trans-1-2-diaminocyclohexaan met driewaardig rhodium en kobalt. Groningen: M. De Waal.

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n-kobaltizout zou der-

aaarin een overzicht der
zoek gegeven wordt en
de resultaten, verkregen
ende methoden tot het
zulke komplexe ionen,

n de komplexe tri-diamino-ionen
en rhodium.

de	c) Schijnbaar absolute con- figuratie, in verband met de rotatorische dispersie en het circulair dichroïsme.	
he	Soort van rotato- rische Dispersie	Teeken v. h. Cotton-effekt
l	D-{Co(en) ₃ }...	+
	"	+
	"	+
aal	L-{Co(en) ₃ }...	-
	D-{Co(en) ₃ }...	+
	"	+
aal	D-{Co(en) ₃ }...	+
	"	+
	"	+

en L beteekenen hier dus weer resp.
oode deel van het spectrum; enz.

SUMMARY.

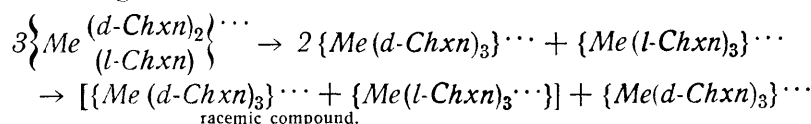
Some complex salts of *trans*-1-2-diaminocyclohexane with tri-valent *cobaltum* and *rhodium* were prepared and their properties described in detail.

Diaminocyclohexane was obtained by the following series of reactions: *cyclohexanone* → *cyclohexanone-1-oxalylicester-2* → *cyclohexanone-1-carboxylicester-2* → *cyclohexanedione-1-2 monoxime* → *cyclohexanedione-1-2 dioxime* → *1-2-diaminocyclohexane*.

The compound was resolved into its optically-active components by means of *d-tartaric acid*. The complex salts of *racemic*-, *dextrogyratory*- and *levogyratory* *diaminocyclohexane* with tri-valent *cobaltum* and *rhodium* were studied. The complex salts of *racemic* *diaminocyclohexane* with *cobaltum* and *rhodium* were subsequently resolved into their optically active components by means of the *halogeno-d-tartrates*. These components proved to be identical with the complex salts directly obtained from the optically active bases.

The crystallographic properties of all these complex salts were determined and their rotatory dispersions in aqueous solutions were measured.

Amongst all theoretically possible combinations only the ions $D\{-Me-(l-Chxn)_3\}^{\cdots}$, $L\{-Me-(d-Chxn)_3\}^{\cdots}$ and $\{Me(r-Chxn)_3\}^{\cdots}$ proved to be stable. All other combinations imaginable are unstable and in solution evidently decomposed according to the formula:



Moreover, tentatives were made to prepare mixed complex salts with different substitutes, as, for instance, $\{Co \begin{matrix} (r-Chxn)_2 \\ (en) \end{matrix} \}Cl_3$. These complex salts also proved to be unstable and, in solution, to be decomposed according to the formula:

